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Abbreviations and glossary of technical terms used in the book

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Appendix I

Country codes abbreviations used in the book according to the International Organization for Standardization list ISO 3166. http://www.iso.org/iso/english_country_names_and_code_elements.

Abbreviation	Country/ Island
AD	Andorra
AL	Albania
AT	Autriche
BA	Bosnia and Herzegovina
BE	Belgium
BG	Bulgaria
BY	Belarus
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
ES-BAL	Spain - Baleares islands
ES-CAN	Spain - Canary islands
FI	Finland
FI-ALN	Finland - Aland
FÖ	Faroe islands
FR	France
FR-COR	France - Corsica island
GB	United Kingdom
GI	Gibraltar
GL	Greenland
GR	Greece
GR-CRE	Greece - Crete
GR-ION	Greece - Ionian islands
GR-NEG	Greece - North Aegean islands
GR-SEG	Greece - South Aegean islands
HR	Croatia
HU	Hungary
IE	Ireland

Abbreviation	Country/ Island
IL	Israel
IS	Iceland
IT	Italy
IT-SAR	Italy - Sardinia island
IT-SIC	Italy - Sicily island
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
LV	Latvia
MD	Moldova
ME	Montenegro
MK	Macedonia
MT	Malta
NL	Netherlands

Abbreviation	Country/ Island
NO	Norway
NO-SVL	Norway - Svalbard
PL	Poland
PT	Portugal
PT-AZO	Portugal - Azores islands
PT-MAD	Portugal - Madeira island
RO	Romania
RS	Serbia
RU	Russia (European Part)
SE	Sweden
SI	Slovenia
SK	Slovakia
UA	Ukraine
YU	Former Yugoslavia

Appendix II

Habitat abbreviations used in the book according to the European Nature Information System (EUNIS) database. http://eunis.eea.europa.eu

Code	Habitat
A	**Marine habitats**
B	**Coastal habitats**
B1	Coastal dune and sand habitats
B2	Coastal shingle habitats
B3	Rock cliffs, ledges and shores, including the supralittoral
C	**Inland surface water habitats**
C1	Surface standing waters
C2	Surface running waters
C3	Littoral zone of inland surface waterbodies
D	**Mire, bog and fen habitats**
D1	Raised and blanket bogs
D2	Valley mires, poor fens and transition mires
D3	Aapa, palsa and polygon mires
D4	Base-rich fens
D5	Sedge and reedbeds, normally without free-standing water
D6	Inland saline and brackish marshes and reedbeds
E	**Grassland and tall forb habitats**
E1	Dry grasslands
E2	Mesic grasslands
E3	Seasonally wet and wet grasslands
E4	Alpine and subalpine grasslands
E5	Woodland fringes and clearings and tall forb habitats

Code	Habitat
E6	Inland saline grass and herb-dominated habitats
E7	Sparsely wooded grasslands
F	**Heathland, scrub and tundra habitats**
F1	Tundra
F2	Arctic, alpine and subalpine scrub habitats
F3	Temperate and mediterraneo-montane scrub habitats
F4	Temperate shrub heathland
F5	Maquis, matorral and thermo-Mediterranean brushes
F6	Garrigue
F7	Spiny Mediterranean heaths (phrygana, hedgehog-heaths and related coastal cliff vegetation)
F8	Thermo-Atlantic xerophytic habitats
F9	Riverine and fen scrubs
FA	Hedgerows
FB	Shrub plantations
G	**Woodland and forest habitats and other wooded land**
G1	Broadleaved deciduous woodland
G2	Broadleaved evergreen woodland
G3	Coniferous woodland
G4	Mixed deciduous and coniferous woodland
G5	Lines of trees, small anthropogenic woodlands, recently felled woodland, early-stage woodland and coppice
H	**Inland unvegetated or sparsely vegetated habitats**
H1	Terrestrial underground caves, cave systems, passages and waterbodies
H2	Screes
H3	Inland cliffs, rock pavements and outcrops
H4	Snow or ice-dominated habitats
H5	Miscellaneous inland habitats with very sparse or no vegetation
H6	Recent volcanic features
I	**Regularly or recently cultivated agricultural, horticultural and domestic habitats**
I1	Arable land and market gardens
I2	Cultivated areas of gardens and parks
J	**Constructed, industrial and other artificial habitats**
J1	Buildings of cities, towns and villages
J2	Low density buildings
J3	Extractive industrial sites
J4	Transport networks and other constructed hard-surfaced areas
J5	Highly artificial man-made waters and associated structures
J6	Waste deposits
J100	Greenhouses
X	**Complex habitats**
X6	Crops shaded by trees
X7	Intensively-farmed crops interspersed with strips of spontaneous vegetation

Code	Habitat
X10	Mixed landscapes with a woodland element (bocages)
X11	Large parks
X13	Land sparsely wooded with broadleaved deciduous trees
X14	Land sparsely wooded with broadleaved evergreen trees
X15	Land sparsely wooded with coniferous trees
X16	Land sparsely wooded with mixed broadleaved and coniferous trees
X20	Treeline ecotones
X22	Small city centre non-domestic gardens
X23	Large non-domestic gardens
X24	Domestic gardens of city and town centres
X25	Domestic gardens of villages and urban peripheries

Glossary of the technical terms used in the book (marked by *)

Alatae: winged forms in aphids, adelgids, and other hemipterans.

Ampelophagous: related to the grapevine.

Anholocyclic: in cyclically parthenogenetic organisms, life cycles that do not include a sexual generation (e.g., in adelgids).

Archegonia: female multicellular egg-producing organ occurring in mosses, ferns, and most gymnosperms.

Archeozooan: an alien animal introduced to Europe since the beginning of the Neolithic agriculture but before the discovery of America by Columbus in 1492 (Daisie 2009).

Arrhenotoky: a common form of sex-determination in Hymenoptera and some other invertebrates, in which progeny are produced by mated or unmated females, but fertilized eggs produce diploid female offspring, whereas unfertilized eggs produce haploid male offspring by parthenogenesis (only the females are biparental).

Carina (sg.), Carinae (pl.): a ridgelike structure (e.g. antennal longitudinal ridge).

Cercus (sg.), Cerci (pl.): paired sensory structures at the posterior end of some arthropods.

Clava: apically differentiated region (sometimes club-like) of the antennal flagellum.

Dealate: having lost its wings; used for ants and other insects that shed their wings after the mating flight.

Declivity: posterior portion of the elytra that descends to its apex.

Domestic: living in human habitats.

Endofurca: the internal skeleton of the meso-and metathorax, that provides important muscle insertion points. In some thrips, the metasternal endofurca provides the insertion for powerful muscles that are associated with a remarkable jumping ability of adults.

Endophytic (adj): living inside a plant.

Endopterygote: insect that undergoes complete metamorphosis, with the larval and adult stages differing considerably in their structure and behaviour.

Epigyne: the external female sex organ in arachnids.

Exarate: for a pupa, having the appendages free and not attached to the body (as opposed to Obtect).

Exopterygote: insect that undergoes incomplete metamorphosis. The young (called nymphs) resemble the adults but lack wings; these develop gradually and externally in a series of stages or instars until the final moult produces the adult insect. There is no pupal stage.

Flagellum: the part of the antenna beyond the pedicel, which is differentiated into three regions, the anellus, funicle and clava.

Frass: waste material produced by feeding insects, including excrement and partially chewed vegetation.

Funicle: region of the antennal flagellum between the anellus and clava.

Gallicolae: leaf gall making forms; e.g., in phylloxerans.

Gnathosoma: anterior body region in mites.

Halobiont: an organism that lives in a salty environment.

Hemimetabolous: the type of insect development in which there is incomplete or partial metamorphosis, typically with successive immature stages increasingly resembling the adult; see Exopterygote.

Holocyclic: in cyclically parthenogenetic organisms, life cycles that include a sexual generation (e.g., in adelgids).

Holoptic: as in flies, with compound eyes meeting along the dorsal midline of the head.

Hyperparasitoid: a parasitoid living on or in another parasitoid.

Idiobiont parasitoid: a parasitoid which prevents further development of the host after initial parasitization.

Idiosoma: abdomen of mites and ticks.

Kleptoparasitoid: a parasitoid which preferentially attacks a host that is already parasitized by another species.

Koinobiont parasitoid: a parasitoid which allows the host to continue its development and often does not kill or consume the host until the host is about to either pupate or become an adult.

Ligula: the apical lobe of the labium.

Megagametophyte: female haploid, gamete-producing tissue in conifers.

Mesothorax: the second, and usually the largest, of the three primary subdivisions of the thorax in insects.

Mesonotum: the dorsal part of the mesothorax.

Metathorax: the third of the three primary subdivisions of the thorax in insects.

Metanotum: the dorsal part of the metathorax.

Moniliform: bead-like (as in antennae).

Mycangium (sg.), mycangia (pl.): usually complex structures on the insect body that are adapted for the transport of symbiotic fungi, usually spores.

Neozooan: an alien animal introduced to Europe after the discovery of America by Columbus in 1492 (Daisie 2009) .

Notaulix (sg.), Notaulices (pl.): one of a pair of grooves on the mesoscutum, from the front margin to one side of the midline and extending backward; divides the mesoscutum into three parts.

Obtect: for a pupa, having the legs and other appendages fused to the body.

Oniscomorph: the state as in 'pill' millipedes of being able to roll up in a ball.

Opisthosoma: posterior part of the body in spiders and mites.

Paranota: lateral wings.

Parthenogenesis, parthenogenetic (adj.): the production of offspring from unfertilized eggs. Special cases of this state are arrhenotoky, pseudo-arrhenotoky, and thelytoky.

Phytoplasma: prokaryotes that are characterized by the lack of a cell wall, associated with plant diseases.

Phytotelmatum (sg.), Phytotelmata (pl.): a small, water-filled cavity in a tree or any similar environment.

Podosoma: anterior section of idiosoma in ticks; serving as connecting area for the four pairs of legs.

Porrect: extended, especially forward; e.g., porrect mandibles.

Proctiger: the reduced terminal segment of the abdomen which contains the anus.

Prognathous: with the head more or less in the same horizontal plane as the body, and the mouthparts directed anteriorly.

Pronotum: the dorsal part of the prothorax.

Propodeum: the first abdominal segment.

Prosoma: anterior part of the body in spiders and mites; also called cephalothorax.

Prothorax: The first of the three primary subdivisions of the thorax in insects.

Pseudo-arrhenotoky: A form of sex-determination (especially in some scale insects and mites) in which males and females arise from fertilized eggs and are diploid. However, males become haploid by inactivation of the paternal genomic complement.

Puparium (sg.), puparia (pl.): the enclosing case of a pupa.

Reticulate: net-like, anastomosing.

Rostrum: beak-shaped projection on the head; e.g., in weevils.

Scutellum: the middle region of the mesonotum or metanotum, behind the scutum.

Scutum: the anterior part of the mesonotum or metanotum.

Secondary pest: a pest that attacks only weakened plants.

Sensorium: sensory structure present on antenna.

Siphunculi, siphuncular (adj.): pair of protruding horn-shaped dorsal tubes in aphids which secrete a waxy fluid.

Spatula sternalis: median cuticular sclerite, often bilobed, on the ventral side of the prothoracic segment of the last instars of some midge larvae; plays a role in larval locomotion.

Stigma: conspicuous, usually melanised area at the apex of a vein of the forewing, generally at the leading wing edge.

Sulcate: having narrow, deep furrows or grooves.

Synanthropic: ecologically associated with humans.

Tegula: Small, typically oval sclerite that covers the region of the mesothorax where the forewing and thorax articulate.

Thelitoky: A form of sex-determination (especially in Hymenoptera: Symphyta and Cynipidae) in which only diploid female progeny are produced by parthenogenesis.

Termen: distalmost edge of wing.

Transhumance: in the case of hives, moving to new environments, according to the change in season.

Xylophagous (adj.): feeding on wood.